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**Attorney Docket No.** 05725.1213-00

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	
Nadia GARDEL et al.	) )
Application No.: New U.S. Patent Application	) Group Art Unit: Unassigned
Filed: June 26, 2003	) ) Examiner: Unassigned
For: WATER-IN-OIL EMULSION FOUNDATION	, ) )

# SUBMISSION OF ENGLISH LANGUAGE TRANSLATION OF PROVISIONAL APPLICATION

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Applicants hereby submit an English language translation of Provisional Application No. 60/401,028, filed August 6, 2002, in advance of any requirement from the Patent Office. It is requested that this translation be placed in the provisional application file wrapper.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.

By.

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Dated: June 26, 2003

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# I, Abraham SMITH DipIng, DipDoc,

translator to RWS Group plc, of Europa House, Marsham Way, Gerrards Cross, Buckinghamshire, England, hereby declare that I am conversant with the English and French languages and am a competent translator thereof. I declare further that to the best of my knowledge and belief the following is a true and correct translation of the accompanying documents in the French language.

Signed this 13th day of May 2003

A. SMITH

For and on behalf of RWS Group plc

The subject of the present invention is a foundation cosmetic composition in the form of a water-in-oil emulsion comprising silicone surfactants and a volatile oil. The subject of the invention is also a method for applying make-up to the skin comprising the application of the foundation to the skin.

The foundation composition is a make-up composition for the skin of human beings. The composition according to the invention may be a 10 foundation to be applied to the face or the neck, a concealer, a tinted cream, or a make-up composition for the body.

Foundation compositions are commonly used to give an aesthetic colour to the skin, in particular to the face, but also to conceal skin imperfections such as redness and spots.

There are known from the document

FR-A-2686510 water-in-oil foundation emulsions
comprising, as surfactant, an alkyl dimethicone

20 copolyol, in particular a cetyl dimethicone copolyol.

However, it has been observed that when these emulsions
contain a large quantity (more than 15% by weight) of
volatile oils, such as for example cyclopentasiloxane,
the fluid emulsion is not stable over time: the

25 emulsion, after storing for 2 months, or even 4 months,
at room temperature (25°C), releases oil at the surface
of the composition and is therefore no longer

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homogeneous. The user should then thoroughly stir the composition before its use. If the composition is not stirred or is poorly stirred, the application of this composition to the skin leaves an uncomfortable sensation of greasiness and the make-up obtained is not homogeneous, and marks of colour are visible on the skin.

The aim of the present invention is to make available a foundation composition having good

Stability after storing at room temperature (25°C) for at least 2 months, or even 4 months, and which makes it possible to obtain a homogeneous make-up on the skin.

The inventors have discovered that such a foundation could be obtained using an alkyl dimethicone copolyol, a dimethicone copolyol and a mixture of volatile oils in a large amount.

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More precisely, the subject of the invention is a foundation in the form of a water-in-oil emulsion comprising a fatty phase, an aqueous phase, a C<sub>8</sub>-C<sub>22</sub> alkyl dimethicone copolyol, a dimethicone copolyol, hydrophobic coated pigments, the fatty phase comprising at least 30% by weight, relative to the total weight of the emulsion, of volatile fatty phase comprising:

- at least 6% by weight, relative to the total weight

- 25 of the emulsion, of at least one volatile hydrocarbon oil, and
  - at least one volatile oil chosen from volatile

silicone oils, volatile fluorinated oils, and mixtures thereof.

The subject of the invention is also a cosmetic method for the non-therapeutic application of make-up to the skin which comprises the application to the skin of a composition as defined above.

The subject of the invention is also the use of a composition as defined above for obtaining a homogeneous make-up on the skin.

- The subject of the invention is also the use of a  $C_8$ - $C_{22}$  alkyl dimethicone copolyol and of a dimethicone copolyol in a foundation composition in the form of a water-in-oil emulsion containing a fatty phase, an aqueous phase, hydrophobic coated pigments,
- 15 the fatty phase comprising at least 30% by weight, relative to the total weight of the emulsion, of volatile fatty phase comprising:
- at least 6% by weight, relative to the total weight of the emulsion, of at least one volatile hydrocarbon
   20 oil, and
  - at least one volatile oil chosen from volatile silicone oils, volatile fluorinated oils, and mixtures thereof,

to obtain a stable and/or homogeneous emulsion and/or to obtain a homogeneous make-up on the skin.

The emulsion according to the present invention has very good stability at room temperature

(25°C), in particular after a storage of 2 months or even better of 4 months. The foundation can be easily applied to the skin, with a sensation of unctuousness, softness and non-greasiness, spreads homogeneously on the skin and dries rapidly after application. The makeup obtained is homogeneous, without leaving any mark on the skin, and exhibits good stability of the mattness over time.

The  $C_8$ - $C_{22}$  alkyl dimethicone copolyol present in the foundation according to the invention is an oxypropylenated and/or oxyethylenated polymethyl  $(C_8$ - $C_{22}$ ) alkyl dimethyl methyl siloxane.

The  $C_8-C_{22}$  alkyl dimethicone copolyol is advantageously a compound of the following formula (I):

 $(CH_3)_3Si-O- \begin{bmatrix} CH_3 \\ Si-O \\ (CH_2)_p \\ CH_3 \end{bmatrix}_o \begin{bmatrix} CH_3 \\ Si-O \\ (CH_2)_q \\ O \\ PE \end{bmatrix}_m \begin{bmatrix} CH_3 \\ Si-O \\ CH_3 \\ O \\ CH_3 \end{bmatrix}_n (I)$ 

in which:

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- PE represents  $(-C_2H_4O)_x-(C_3H_6O)_y-R$ , R being chosen from 20 a hydrogen atom and an alkyl radical of 1 to 4 carbon atoms, x ranging from 0 to 100 and y ranging from 0 to 80, x and y not being simultaneously 0
  - m ranges from 1 to 40
  - n ranges from 10 to 200

- o ranges from 1 to 100
- p ranges from 7 to 21
- q ranges from 0 to 4

and preferably:

5 R = H

m = 1 to 10

n = 10 to 100

o = 1 to 30

p = 15

10 q = 3

As  $C_8-C_{22}$  alkyl dimethicone copolyol, there may be mentioned cetyl dimethicone copolyol such as the product marketed under the name Abil EM-90 by the company Goldschmidt.

- The  $C_8$ - $C_{22}$  alkyl dimethicone copolyol may be present in the emulsion according to the invention in an amount ranging from 0.5% to 2% by weight, relative to the total weight of the emulsion, and preferably ranging from 0.5% to 1.5% by weight.
- The dimethicone copolyol present in the foundation according to the invention is an oxypropylenated and/or oxyethylenated polydimethylmethylsiloxane.

It is possible to use, as dimethicone

25 copolyol, those corresponding to the following formula

(II):

in which:

 $R_1$ ,  $R_2$ ,  $R_3$ , independently of each other, represent a  $C_1$ - $C_6$  alkyl radical or a radical -( $CH_2$ ) $_x$ -( $OCH_2CH_2$ ) $_y$ -

5  $(OCH_2CH_2CH_2)_z-OR_4$ , at least one radical  $R_1$ ,  $R_2$  or  $R_3$  not being an alkyl radical;  $R_4$  being hydrogen, a  $C_1-C_3$  alkyl radical or a  $C_2-C_4$  acyl radical;

A is an integer ranging from 0 to 200;

B is an integer ranging from 0 to 50; provided that A

10 and B are not equal to zero at the same time;

x is an integer ranging from 1 to 6;

y is an integer ranging from 1 to 30;

z is an integer ranging from 0 to 5.

According to a preferred embodiment of the invention, in the compound of formula (II),  $R_1 = R_3 =$  methyl radical, x is an integer ranging from 2 to 6 and y is an integer ranging from 4 to 30.  $R_4$  is in particular hydrogen.

There may be mentioned, by way of example of 20 compounds of formula (II), the compounds of formula (III):

in which A is an integer ranging from 20 to 105, B is an integer ranging from 2 to 10 and y is an integer

ranging from 10 to 20.

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There may also be mentioned, by way of example of silicone compounds of formula (II), the compounds of formula (IV):

5 HO- $(OCH_2CH_2)_y$ - $(CH_2)_3$ - $[(CH_3)_2SiO]_{A'}$ - $(CH_2)_3$ - $(OCH_2CH_2)_y$ -OH (IV) in which A' and y are integers ranging from 10 to 20.

It is possible to use, as dimethicone copolyol, those sold under the names DC 5329, DC 7439-146, DC 2-5695, Q4-3667 by the company Dow Corning; KF-6013, KF-6015, KF-6016, KF-6017 by the company Shin-Etsu.

The compounds DC 5329, DC 7439-146, DC 2-5695 are compounds of formula (III) where respectively A is 22, B is 2 and y is 12; A is 103, B is 10 and y is 12; A is 27, B is 3 and y is 12.

The compound Q4-3667 is a compound of formula (IIV) where A is 15 and y is 13.

The dimethicone copolyol may be present in the emulsion according to the invention in an amount ranging from 5% to 10% by weight, relative to the total weight of the emulsion, and preferably ranging from 5% to 8% by weight, and preferably ranging from 5% to 7% by weight.

The hydrophobic coated pigments present in

the emulsion according to the invention are pigments

which are surface-treated with a hydrophobic agent in

order to make them compatible with the fatty phase of

the emulsion, in particular for them to have good wettability with the oils of the fatty phase. Thus, these treated pigments are well dispersed in the fatty phase.

5 The pigments intended to be coated may be inorganic or organic pigments. As pigments, it is possible to use metal oxides such as iron oxides (in particular those which are yellow, red, brown or black in colour), titanium dioxides, cerium oxide, zirconium 10 oxide, chromium oxide; manganese violet, ultramarine blue, Prussian blue, ultramarine blue, ferric blue, bismuth oxychloride, pearl, mica coated with titanium or with bismuth oxychloride, coloured pearlescent pigments such as mica-titanium with iron oxides, mica-15 titanium with in particular ferric blue or chromium oxide, mica-titanium with an organic pigment of the abovementioned type and pearlescent pigments based on bismuth oxychloride, and mixtures thereof.

Pigments of iron oxides or of titanium 20 dioxide are preferably used.

The hydrophobic treatment agent may be chosen from silicones such as methicones, dimethicones, perfluoroalkylsilanes; fatty acids such as stearic acid; metal soaps such as aluminium dimyristate, the aluminium salt of hydrogenated tallow glutamate, perfluoroalkyl phosphates, perfluoroalkylsilanes, perfluoroalkylsilazanes, polyhexafluoropropylene

oxides, polyorganosiloxanes comprising perfluoroalkyl perfluoropolyether groups, amino acids; N-acylated amino acids or their salts; lecithin, isopropyl triisostearyl titanate, and mixtures thereof.

The N-acylated amino acids may comprise an acyl group having from 8 to 22 carbon atoms, such as for example a 2-ethylhexanoyl, caproyl, lauroyl, myristoyl, palmitoyl, stearoyl and cocoyl group. The salts of these compounds may be the aluminium,

10 magnesium, calcium, zirconium, zinc, sodium and potassium salts. The amino acid may be, for example, lysine, glutamic acid and alanine.

The term alkyl mentioned in the compounds cited above denotes in particular an alkyl group having from 1 to 30 carbon atoms, preferably having from 5 to 16 carbon atoms.

Hydrophobic treated pigments are in particular described in application EP-A-1086683.

The hydrophobic coated pigments may be
20 present in an amount ranging from 0.5% to 20% by
weight, relative to the total weight of the emulsion,
preferably in an amount at least equal to 5% by weight,
in particular ranging from 5% to 20% by weight (in
particular ranging from 8% to 20% by weight), and
25 preferably ranging from 8 to 15% by weight.

The fatty phase of the emulsion according to the invention comprises at least 30% by weight,

relative to the total weight of the emulsion, of the volatile fatty phase comprising, or even consisting of, a mixture of volatile oils as defined above, in particular from 30% to 45% by weight, preferably from 30% to 40% by weight, and preferentially from 33% to 38% by weight. In particular, the mixture of volatile oils as defined above may be present in an amount ranging from 30% to 45% by weight, preferably from 30% to 40% by weight, and preferentially from 33% to 38% by weight, relative to the total weight of the emulsion.

The expression "volatile oil" is understood to mean an oil (or a non-aqueous medium) capable of evaporating upon contact with the skin in less than one hour, at room temperature and atmospheric pressure. The volatile oil is a volatile cosmetic oil, which is liquid at room temperature, having in particular a non-zero vapour pressure, at room temperature and atmospheric pressure, in particular having a vapour pressure ranging from 0.13 Pa to 40 000 Pa (10<sup>-3</sup> to 300 mmHg), and preferably ranging from 1.3 Pa to 13 000 Pa (0.01 to 100 mmHg), and preferentially ranging from 1.3 Pa to 1 300 Pa (0.01 to 100 mmHg).

In addition, the volatile oil generally has a boiling point, measured at atmospheric pressure, ranging from 150°C to 260°C, and preferably ranging from 170°C to 250°C.

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The expression hydrocarbon oil is understood

to mean an oil essentially formed, or even consisting, of carbon and hydrogen atoms, and optionally oxygen and nitrogen atoms, and containing no silicon or fluorine atom; it may contain ester, ether, amine and amide 5 groups.

The expression silicone oil is understood to mean an oil containing at least one silicon atom, and in particular containing Si-O groups.

The expression fluorinated oil is understood to mean an oil containing at least one fluorine atom.

The volatile hydrocarbon oil which can be used in the invention may be chosen from hydrocarbon oils having a flash point ranging from 40°C to 102°C, preferably ranging from 40°C to 55°C, and preferentially ranging from 40°C to 50°C.

As volatile hydrocarbon oil, there may be mentioned the volatile hydrocarbon oils having from 8 to 16 carbon atoms and mixtures thereof, and in particular the branched C<sub>8</sub>-C<sub>16</sub> alkanes such as C<sub>8</sub>-C<sub>16</sub> isoalkanes (also called isoparaffins), isododecane, isodecane, isohexadecane and for example the oils sold under the trade name Isopars or Permetyls, branched C<sub>8</sub>-C<sub>16</sub> esters such as isohexyl neopentanoate, and mixtures thereof. Preferably, the volatile hydrocarbon oil is chosen from volatile hydrocarbon oils having from 8 to 16 carbon atoms and mixtures thereof, in

particular isododecane, isodecane, isohexadecane, and

is in particular isododecane.

The volatile hydrocarbon oil may be present in an amount ranging from 6% to 25% by weight, relative to the total weight of the emulsion, preferably ranging from 10% to 20% by weight, and preferentially ranging from 10% to 15% by weight. In particular, the composition comprises at least 10% by weight, relative to the total weight of the emulsion, of volatile hydrocarbon oil.

10 The volatile silicone oil which can be used in the invention may be chosen from the silicone oils having a flash point ranging from 40°C to 102°C, preferably having a flash point greater than 55°C and less than or equal to 95°C, and preferentially ranging 15 from 65°C to 95°C.

As volatile silicone oil, there may be mentioned linear or cyclic silicone oils having from 2 to 7 silicon atoms, these silicones optionally containing alkyl or alkoxy groups having from 1 to 10 carbon atoms. As an example of a volatile silicone oil, there may be mentioned in particular octamethylcyclotetrasiloxane, decamethylcyclopentasiloxane, dodecamethylcyclohexasiloxane, heptamethylhexyltrisiloxane, heptamethyloctyltrisiloxane, hexamethyldisiloxane, octamethyltrisiloxane, decamethyltetrasiloxane, dodecamethylpentasiloxane, and mixtures thereof.

The volatile fluorinated oil generally has no

flash point.

As volatile fluorinated oil, there may be mentioned nonafluoroethoxybutane, nonafluoromethoxybutane, decafluoropentane, tetradecafluorohexane, dodecafluoropentane, and mixtures thereof.

The volatile oil chosen from volatile silicone oils, volatile fluorinated oils, and mixtures thereof may be present in an amount ranging from 20% to 32% by weight, relative to the total weight of the emulsion, preferably ranging from 20% to 30% by weight, and preferentially ranging from 22% to 26% by weight.

According to a preferred embodiment of the invention, the volatile fatty phase of the emulsion comprises:

- 15 a first volatile hydrocarbon oil,
  - a second volatile silicone oil having a flash point greater than 55°C and less than or equal to 80°C, preferably ranging from 65°C to 80°C, and even better ranging from 67°C to 85°C,
- 20 a third volatile silicone oil having a flash point greater than 80°C, preferably greater than or equal to 80°C and less than or equal to 95°C, and even better ranging from 87°C to 95°C.

In this embodiment:

- 25 the first volatile hydrocarbon oil may be an isoparaffin, and in particular isododecane;
  - the second volatile silicone oil may be decamethyl-

cyclopentasiloxane, decamethyltetrasiloxane, and preferably decamethylcyclopentasiloxane;

- the third volatile silicone oil may be dodecamethylcyclohexasiloxane.
- 5 Advantageously, the first volatile hydrocarbon oil, and in particular isododecane, may be present in an amount ranging from 6% to 25% by weight, relative to the total weight of the emulsion, preferably ranging from 10% to 20% by weight, and preferentially ranging from 10% to 15% by weight.

Advantageously, the second volatile silicone oil, in particular decamethylcyclopentasiloxane, may be present in an amount ranging from 0.1% to 31.9% by weight, relative to the total weight of the emulsion, preferably ranging from 5% to 20% by weight, and preferentially ranging from 8% to 16% by weight.

Advantageously, the third volatile silicone oil, and in particular dodecamethylcyclohexasiloxane, may be present in an amount ranging from 0.1% to 31.9% 20 by weight, relative to the total weight of the emulsion, preferably ranging from 5% to 20% by weight, and preferentially ranging from 8% to 16% by weight.

A particularly preferred embodiment of the composition according to the invention is a foundation in which the volatile fatty phase comprises at least 30% by weight, relative to the total weight of the emulsion, of a mixture of decamethylcyclopentasiloxane,

dodecamethylcyclohexasiloxane and isododecane, the content of isododecane being at least 6% by weight, relative to the total weight of the emulsion, and preferably at least 10% by weight.

The fatty phase of the emulsion according to the invention may additionally comprise at least one additional non-volatile oil.

The additional oil may be present in an amount ranging from 0.1% to 12% by weight, relative to the total weight of the emulsion, and preferably ranging from 1% to 5% by weight.

The emulsion advantageously comprises from 30% to 45% by weight, relative to the total weight of the emulsion, of oils, and preferably from 30% to 40% by weight.

The non-volatile additional oil may be chosen from carbonaceous, hydrocarbon and/or silicone oils of mineral, animal, plant or synthetic origin, and mixtures thereof, as long as they are compatible with the envisaged use.

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There may be mentioned non-volatile
hydrocarbon oils such as paraffin oil or liquid
paraffin, isoeicosane, mink oil, turtle oil, soya bean
oil, perhydrosqualene, sweet almond oil, calophyllum
oil, palm oil, grapeseed oil, sesame oil, maize oil,
arara oil, rapeseed oil, sunflower oil, cottonseed oil,
apricot oil, castor oil, avocado oil, jojoba oil, olive

oil or cereal germ oil; esters of lanolic acid, oleic acid, lauric acid and stearic acid; fatty esters, such as isopropyl myristate, isopropyl palmitate, butyl stearate, hexyl laurate, diisopropyl adipate, isononyl isononanoate, 2-ethylhexyl palmitate, 2-hexyldecyl laurate, 2-octyldecyl palmitate, 2-octyldodecyl myristate or lactate, 2-diethylhexyl succinate, diisostearyl malate, glycerine or diglycerine triisostearate; higher fatty acids such as myristic acid, linoleic acid, stearic acid, behenic acid, oleic acid, linoleic acid, linolenic acid or isostearic acid; higher fatty alcohols such as cetanol, stearyl alcohol or oleyl alcohol, linoleyl or linolenyl alcohol, isostearyl alcohol or octyldodecanol.

As additional non-volatile silicone oil, there may be mentioned polydimethylsiloxanes (PDMS), which are optionally phenylated, such as phenyltrimethicones, or which are optionally substituted with aliphatic and/or aromatic groups, or with functional groups such as hydroxyl, thiol and/or amine groups; polysiloxanes modified with fatty acids, fatty alcohols or polyoxyalkylenes, and mixtures thereof.

The fatty phase may also comprise at least

25 one wax, at least one gum and/or at least one pasty
fatty substance, of plant, animal, mineral or synthetic
origin, or even silicone-based, and mixtures thereof.

Among the waxes solid at room temperature, which may be present in the composition according to the invention, there may be mentioned hydrocarbon waxes such as beeswax, Carnauba wax, Candelilla wax,

- Ouricoury wax, Japan wax, cork fibre or sugarcane waxes, paraffin or lignite waxes, microcrystalline waxes, lanolin wax, Montan wax, ozokerites, polyethylene waxes, waxes obtained by Fischer-Tropsch synthesis, hydrogenated oils, fatty esters and
- o glycerides which are concrete at 25°C. It is also possible to use silicone waxes, among which there may be mentioned alkyl, alkoxy and/or esters of polymethylsiloxane. The waxes may be provided in the form of stable dispersions of colloidal particles of
- as those of "Microemulsions Theory and Practice",

  L.M. Prince Ed., Academic Press (1977), pages 21-32. As

  wax which is liquid at room temperature, jojoba oil may
  be mentioned.
- The waxes may be present in an amount of 0.1% to 10% by weight relative to the total weight of the emulsion, and preferably from 0.1% to 5% by weight.

The pasty fatty compounds may be defined by at least one of the following physicochemical

### 25 properties:

- a viscosity of 0.1 to 40 Pa.s (1 to 400 poises), preferably 0.5 to 25 Pa.s, measured at 40°C with a

CONTRAVES TV rotary viscometer equipped with an MS-r3 or MS-r4 rotor at a frequency of 60 Hz,

- a melting point of 25-70°C, preferably 25-55°C.

The compositions of the invention may also comprise at least one alkyl, alkoxy or phenyl dimethicone such as, for example, the product sold under the name "Abil wax 2440" by the company GOLDSCHMIDT.

The compositions according to the invention 10 may also comprise at least one silicone resin comprising a combination of  $R_3SiO_{1/2}$ ,  $R_2SiO_{2/2}$ ,  $RSiO_{3/2}$  and  $SiO_{4/2}$  units in which R denotes an alkyl radical having from 1 to 6 carbon atoms.

The emulsion according to the invention may comprise, in addition, a fatty phase thickening agent. The thickening agent may be chosen from:

- organomodified clays which are clays treated with compounds chosen in particular from quaternary amines and tertiary amines. As organomodified clays, there may
- 20 be mentioned organomodified bentonites such as those sold under the name "Bentone 34" by the company RHEOX, organomodified hectorites such as those sold under the name "Bentone 27", "Bentone 38" by the company RHEOX.
- hydrophobic pyrogenic silica, which is a pyrogenic
   silica which is chemically surface-modified by a chemical reaction generating a reduction in the number of silanol groups. Silanol groups may be replaced in

particular by hydrophobic groups.

The hydrophobic groups may be:

- trimethylsiloxyl groups, which are obtained in particular by treating pyrogenic silica in the presence of hexamethyldisilazane. Silicas thus treated are called "Silica silylate" according to CTFA (6<sup>th</sup> edition, 1995). They are for example marketed under the references "AEROSIL R812®" by the company Degussa, "CAB-O-SIL TS-530®" by the company Cabot.
- 10 dimethylsilyloxyl or polydimethylsiloxane groups, which are in particular obtained by treating pyrogenic silica in the presence of polydimethylsiloxane or dimethyldichlorosilane. Silicas thus treated are called "Silica dimethyl silylate" according to CTFA (6<sup>th</sup>
- edition, 1995). They are for example marketed under the references "AEROSIL R972®", "AEROSIL R974®" by the company Degussa, "CAB-O-SIL TS-610®", "CAB-O-SIL TS-720®" by the company Cabot.

The pyrogenic silica preferably has a 20 particle size which may be nanometric or micrometric, for example ranging from about 5 to 200 nm.

The fatty phase thickening agent may be present in an amount ranging from 0.1% to 5% by weight, relative to the total weight of the emulsion, and even better from 0.4% to 3% by weight.

The fatty phase may represent from 30% to 45%, preferably from 35% to 45% by weight relative to

the total weight of the emulsion.

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The aqueous phase comprises water. The water may be a floral water such as cornflower water and/or a mineral water such as VITTEL water, LUCAS water or LA 5 ROCHE POSAY water and/or a thermal water.

The aqueous phase may also comprise solvents other than water, such as for example primary alcohols such as ethanol and isopropanol, glycols such as propylene glycol, butylene glycol, dipropylene glycol, diethylene glycol, glycol ethers such as (C1-C4)alkyl ether of mono-, di- or tripropylene glycol, mono-, di- or triethylene glycol, and mixtures thereof.

The aqueous phase may comprise, in addition, stabilizing agents, for example sodium chloride, magnesium dichloride and magnesium sulphate.

The aqueous phase may also comprise any water-soluble or water-dispersible compound compatible with an aqueous phase, such as gelling agents, film-forming polymers, thickeners, surfactants and mixtures thereof.

Preferably, the aqueous phase is present in the emulsion according to the invention in an amount ranging from 30% to 50% by weight, preferably ranging from 35% to 45% by weight, relative to the total weight of the emulsion.

The emulsion according to the invention may comprise fillers. The expression fillers should be

understood to mean colourless or white, inorganic or synthetic, lamellar or non-lamellar particles.

The fillers may be present in the emulsion in an amount ranging from 0.1% to 10% by weight, relative to the total weight of the emulsion, preferably 0.1% to 7%. There may be mentioned in particular talc, mica, silica, kaolin, starch, boron nitride, calcium carbonate, magnesium carbonate or hydrocarbonate, microcrystalline cellulose, powders of synthetic polymers such as polyethylene, polyesters, polyamides such as those sold under the tradename "Nylon", polytetrafluoroethylene ("Teflon") and silicone powders.

Advantageously, the emulsion according to the
invention may have a viscosity, measured at 25°C, at a
shear rate of 200 min<sup>-1</sup> (200 revolutions per minute,
that is a frequency of 50 Hz), ranging from 0.15 to 0.6
Pa.s (15 to 6 poises), and preferably ranging from 0.25
to 0.45 Pa.s (2.5 to 4.5 poises). Such a viscosity
allows easy application of the emulsion, and the
obtaining of a make-up which is homogeneous, uniform
and without marks. The viscosity is measured at 25°C
with a TV type CONTRAVES viscometer equipped with a
No. 2 rotor, the measurement being carried out after 10
minutes of rotation of the rotor (time after which
stabilization of the viscosity and of the speed of
rotation of the rotor is observed), at a shear rate of

 $200 \text{ min}^{-1}$ .

In a known manner, all the compositions of the invention may contain one or more customary adjuvants in the cosmetic or dermatological fields, hydrophilic or lipophilic gelling and/or thickening agents; moisturizing agents; emollients; hydrophilic or lipophilic active agents; anti-free radical agents; sequestrants; antioxidants; preservatives; basifying or acidifying agents; perfumes; film-forming agents; soluble colorants; and mixtures thereof. The quantities of these various adjuvants are those conventionally used in foundations.

As active agents which may be used in the composition of the invention, there may be mentioned 15 for example moisturizing agents such as protein hydrolysates and polyols such as glycerine, glycols such as polyethylene glycols, and sugar derivatives; natural extracts; anti-inflammatory agents; procyannidolic oligomers; vitamins such as vitamin A 20 (retinol), vitamin E (tocopherol), vitamin C (ascorbic acid), vitamin B5 (panthenol), vitamin B3 (niacinamide), derivatives of these vitamins (in particular esters) and mixtures thereof; urea; caffeine; salicylic acid and its derivatives; alpha-25 hydroxy acids such as lactic acid and glycolic acid and derivatives thereof; retinoids such as carotenoids and derivatives of vitamin A; sunscreens; hydrocortisone;

melatonin; extracts of algae, fungi, plants, yeasts or bacteria; enzymes; steroids; anti-bacterial active agents such as 2,4,4'-trichloro-2'-hydroxydiphenyl ether (or triclosan), 3,4,4'-trichlorocarbanilide (or triclocarban) and the acids indicated above and in particular salicylic acid and its derivatives; tightening agents; and mixtures thereof.

The sunscreens (or UV-screening agents) may be chosen from organic screening agents, physical screening agents and mixtures thereof.

As chemical sunscreens which may be used in the composition of the invention, the composition of the invention may comprise any UVA- and UVB-screening agents which may be used in the cosmetic field.

As UVB-screening agents, there may be mentioned for example:

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- (1) salicylic acid derivatives, in particular homomenthyl salicylate and octyl salicylate;
- (2) cinnamic acid derivatives, in particular 2-ethyl-
- 20 hexyl p-methoxycinnamate, marketed by the company Givaudan under the name Parsol MCX;
  - (3) liquid  $\beta$ ,  $\beta'$ -diphenylacrylate derivatives, in particular 2-ethylhexyl  $\alpha$ -cyano- $\alpha$ ,  $\beta'$ -diphenylacrylate or octocrylene, marketed by the company BASF under the name UVINUL N539;
  - (4) p-aminobenzoic acid derivatives;
  - (5) 4-methylbenzylidenecamphor marketed by the company

Merck under the name EUSOLEX 6300;

- (6) 2-phenylbenzimidazole-5-sulphonic acid marketed under the name EUSOLEX 232 by the company Merck;
- (7) 1,3,5-triazine derivatives, in particular:
- 5 2,4,6-tris[p-(2'-ethylhexyl-1'-oxycarbonyl)anilino]1,3,5-triazine marketed by the company BASF under the
  name UVINUL T150, and
  - dioctylbutamidotriazone marketed by the company Sigma 3V under the name UVASORB HEB;
- 10 (8) mixtures of these screening agents.

As UVA-screening agents, there may be mentioned for example:

- (1) dibenzoylmethane derivatives, in particular 4-(tert-butyl)-4'-methoxydibenzoylmethane marketed by
- 15 the company Givaudan under the name PARSOL 1789;
  - (2) 1,4-benzene[di(3-methylidene-10-camphorsulphonic)]
    acid optionally in partially or completely neutralized
    form, marketed under the name MEXORYL SX by the company
    Chimex;
- 20 (3) benzophenone derivatives, for example:
  - 2,4-dihydroxybenzophenone (benzophenone-1);
  - 2,2',4,4'-tetrahydroxybenzophenone (benzophenone-2);
  - 2-hydroxy-4-methoxybenzophenone (benzophenone-3), marketed under the name UVINUL M40 by the company BASF;
- 25 2-hydroxy-4-methoxybenzophenone-5-sulphonic acid
  (benzophenone-4) and its sulphonate form (benzophenone5), marketed by the company BASF under the name UVINUL

# MS40; - 2,2'-dihydroxy-4,4'-dimethoxybenzophenone (benzophenone-6); - 5-chloro-2-hydroxybenzophenone (benzophenone-7); 5 - 2,2'-dihydroxy-4-methoxybenzophenone (benzophenone-8); - the disodium salt of 2,2'-dihydroxy-4,4'-dimethoxybenzophenone-5,5'-disulphonic diacid (benzophenone-9); - 2-hydroxy-4-methoxy-4'-methylbenzophenone (benzo-10 phenone-10); - benzophenone-11; - 2-hydroxy-4-(octyloxy)benzophenone (benzophenone-12); (4) silane derivatives or polyorganosiloxanes having benzophenone groups; 15 (5) anthranilates, in particular menthyl anthranilate marketed by the company Haarman & Reiner under the name NEO HELIOPAN MA; (6) compounds containing, per molecule, at least two benzoazolyl groups or at least one benzodiazolyl group, 20 in particular 1,4-bis-benzimidazolyl-phenylene-3,3',5,5'-tetrasulphonic acid, and its salts, marketed by the company Haarman & Reimer; (7) silicon-containing derivatives of N-substituted benzimidazolyl-benzazoles or of benzofuranyl-25 benzazoles, and in particular: -2-[1-[3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]-

disiloxanyl]propyl]-1H-benzimidazol-2-yl]benzoxazole;

- 2-[1-[3-[1,3,3,3-tetramethyl-1-[(trimethylsilyl)oxy]-disiloxanyl]propyl]-1H-benzimidazol-2-yl]benzothiazole;
- 2-[1-(3-trimethylsilanylpropyl)-1H-benzimidazol-2yl]benzoxazole;
- 5 6-methoxy-1,1'-bis(3-trimethylsilanylpropyl)-1H,1'H[2,2']dibenzimidazolylbenzoxazole;
  - 2-[1-(3-trimethylsilanylpropyl)-1H-benzimidazol-2yl]benzothiazole;

which are described in patent application

- 10 EP-A-1 028 120;
- (8) triazine derivatives, and in particular 2,4-bis{[4-(2-ethylhexyloxy)-2-hydroxy]phenyl}-6-(4-methoxy-phenyl)-1,3,5-triazine marketed by the company Ciba Geigy under the name TINOSORB S, and 2,2'-methylenebis-[6-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)-phenol] marketed by the company Ciba Geigy under the
  - (9) and mixtures thereof.

name TINOSORB M;

It is also possible to use a mixture of

20 several of these screening agents and a mixture of UVBscreening agents and UVA-screening agents and also
mixtures with physical screening agents.

As physical screening agents, there may be mentioned titanium oxide (amorphous or crystalline

25 titanium dioxide in rutile and/or anatase form), zinc oxide, iron oxide, zirconium oxide or cerium oxide, or mixtures thereof. These metal oxides may be in the form

of particles having a micrometre or nanometre size (nanopigments). In the form of nanopigments, the average sizes of the particles range for example from 5 to 100 nm.

These pigments are preferably treated so as to make their surface hydrophobic; this treatment may be carried out according to methods known to persons skilled in the art; the pigments may in particular be coated with silicone compounds such as PDMS and/or with polymers.

Of course, persons skilled in the art will be careful to choose the possible adjuvant(s) added to the composition according to the invention such that the advantageous properties intrinsically attached to the composition in accordance with the invention are not, or not substantially, impaired by the addition envisaged.

The invention is illustrated in greater detail in the following examples.

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# Example 1:

A foundation was prepared in the form of a water-in-oil emulsion having the following composition:

# Oily phase:

5	Isododeçane		13	g
	Cyclopentasiloxane		16	g
	Cyclohexasiloxane		8	g
	Polydimethylsiloxane (DC	200 Fluid - 5 cst		
	from the company DOW COF	RNING)	2	g
10	Isoeicosane		3	g
	Cetyl dimethicone copoly	rol		
	(Abil® Em 90 from the co	ompany GOLDSCHMIDT)	0.8	g
	Dimethicone copolyol (KF	6017 from Shin Etsu)	5	g
	Polyglyceryl isostearate	e (4 mol of glycerol)	0.6	g
15	Hectorite		1.4	g
	Iron oxides coated with	perfluoroalkyl		
	phosphate		2	g
	Titanium oxide coated wi	th perfluoroalkyl		
	phosphate		5.5	g
20	Nylon powder		4	g
	Aqueous phase:			
	Butylene glycol		10	g
	Sodium chloride		0.7	g
	Preservatives			
25	Water	qs	100	g

The emulsion is prepared at room temperature,

on the one hand, by mixing the pigments in part of the cyclopentasiloxane, on the other hand, by mixing the other oils with the surfactants, and then the mixture of pigments and the nylon are added to the other mixed constituents of the fatty phase. The mixture of the constituents of the aqueous phase is then prepared and poured into the mixture of the fatty phase, with stirring, according to known means in order to finally obtain the emulsion.

This foundation is stable after storing at room temperature (25°C) for 4 months. It is easy to apply to the skin with a good sensation of unctuousness and of softness, a very good slipperiness; it dries rapidly after application of the product, and the make-up obtained exhibits good colour homogeneity, without leaving any mark on the skin.

## Example 2:

A foundation was prepared in the form of a 20 water-in-oil emulsion having the following composition:

## Oily phase:

	Isododecane	13	g
	Cyclopentasiloxane	16	g
	Cyclohexasiloxane	6.8	g
25	Polydimethylsiloxane (DC 200 Fluid - 5 cst		
	from the company DOW CORNING)	2	g
	Tsoeicosane	3	ď

	Cetyl dimethicone copolyol			
	(Abil <sup>®</sup> Em 90 from the company	GOLDSCHMIDT)	2	g
	Dimethicone copolyol (KF6017	from Shin Etsu)	5	g
	Polyglyceryl isostearate (4 m	ol of glycerol)	0.6	g
5	Hectorite		1.4	g
	Iron oxides coated with perfl	uoroalkyl		
	phosphate		2	g
	Titanium oxide coated with pe	rfluoroalkyl		
	phosphate		5.5	g
10	Nylon powder		4	g
	Aqueous phase:			
	Butylene glycol		10	g
	Sodium chloride		0.7	g
	Preservatives			
15	Water	<b>d</b> e	100	g

The foundation exhibits good stability at room temperature. It is easy to apply to the skin with no sensation of greasiness; it dries rapidly after 20 application of the product to the skin; the make-up obtained exhibits good colour homogeneity, without leaving any mark on the skin.

#### **CLAIMS**

- Foundation in the form of a water-in-oil emulsion comprising a fatty phase, an aqueous phase, a
   C<sub>8</sub>-C<sub>22</sub> alkyl dimethicone copolyol, a dimethicone copolyol, hydrophobic coated pigments, the fatty phase comprising at least 30% by weight, relative to the total weight of the emulsion, of volatile fatty phase comprising:
- 10 at least 6% by weight, relative to the total weight of the emulsion, of at least one volatile hydrocarbon oil, and
  - at least one volatile oil chosen from volatile silicone oils, volatile fluorinated oils, and mixtures thereof.
  - 2. Foundation according to Claim 1, characterized in that the  $C_8-C_{22}$  alkyl dimethicone copolyol is a compound of the following formula (I):

$$(CH_3)_3Si - O - \begin{bmatrix} CH_3 & CH$$

20

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in which:

- PE represents  $(-C_2H_4O)_x-(C_3H_6O)_y-R$ , R being chosen from a hydrogen atom and an alkyl radical of 1 to 4 carbon atoms, x ranging from 0 to 100 and y ranging from 0 to

80, x and y not being simultaneously 0

- m ranges from 1 to 40
- n ranges from 10 to 200
- o ranges from 1 to 100
- 5 p ranges from 7 to 21
  - q ranges from 0 to 4.
  - 3. Foundation according to Claim 2, characterized in that R = H; m = 1 to 10; n = 10 to 100; o = 1 to 30; p = 15; q = 3.
- 4. Foundation according to any one of the preceding claims, characterized in that the  $C_8$ - $C_{22}$  alkyl dimethicone copolyol is cetyl dimethicone copolyol.
- 5. Foundation according to any one of the preceding claims, characterized in that the C<sub>8</sub>-C<sub>22</sub> alkyl dimethicone copolyol is present in an amount ranging from 0.5% to 2% by weight, relative to the total weight of the emulsion, and preferably ranging from 0.5% to 1.5% by weight.
- 6. Foundation according to any one of the preceding claims, characterized in that the dimethicone copolyol is a compound of the following formula (II):

in which:

 $R_1$ ,  $R_2$ ,  $R_3$ , independently of each other, represent a  $C_1$ - $C_6$  alkyl radical or a radical -  $(CH_2)_x$ - $(OCH_2CH_2)_y$ -

 $(OCH_2CH_2CH_2)_z-OR_4$ , at least one radical  $R_1$ ,  $R_2$  or  $R_3$  not being an alkyl radical;  $R_4$  being hydrogen, a  $C_1-C_3$  alkyl radical or a  $C_2-C_4$  acyl radical;

A is an integer ranging from 0 to 200;

- 5 B is an integer ranging from 0 to 50; provided that A and B are not equal to zero at the same time;
  - x is an integer ranging from 1 to 6;
  - y is an integer ranging from 1 to 30;
  - z is an integer ranging from 0 to 5.
- 7. Foundation according to Claim 6, characterized in that  $R_1 = R_3 = methyl \ radical$ , x is an integer ranging from 2 to 6 and y is an integer ranging from 4 to 30.
- 8. Foundation according to Claim 6 or 7, 15 characterized in that R<sub>4</sub> is hydrogen.
  - 9. Foundation according to any one of Claims 1 to 6, characterized in that the dimethicone copolyol is a compound of the following formula (III): (CH<sub>3</sub>)<sub>3</sub>SiO [(CH<sub>3</sub>)<sub>2</sub>SiO]<sub>A</sub> (CH<sub>3</sub>SiO)<sub>B</sub> Si(CH<sub>3</sub>)<sub>3</sub>

| (III) (CH<sub>2</sub>)<sub>2</sub>-(OCH<sub>2</sub>CH<sub>2</sub>)<sub>y</sub>-OH

- 20 in which A is an integer ranging from 20 to 105, B is an integer ranging from 2 to 10 and y is an integer ranging from 10 to 20.
- 10. Foundation according to any one of
  Claims 1 to 6, characterized in that the dimethicone
  25 copolyol is a compound of the following formula (IV):
  HO-(OCH<sub>2</sub>CH<sub>2</sub>)<sub>y</sub>-(CH<sub>2</sub>)<sub>3</sub>-[(CH<sub>3</sub>)<sub>2</sub>SiO]<sub>A</sub>-(CH<sub>2</sub>)<sub>3</sub>-(OCH<sub>2</sub>CH<sub>2</sub>)<sub>y</sub>-OH (IV)

in which A' and y are integers ranging from 10 to 20.

- 11. Foundation according to any one of the preceding claims, characterized in that the dimethicone copolyol is present in an amount ranging from 5% to 10% by weight, relative to the total weight of the emulsion, preferably ranging from 5% to 8% by weight, and preferentially ranging from 5% to 7% by weight.
- 12. Foundation according to any one of the preceding claims, characterized in that the hydrophobic coated pigments are chosen from metal oxides, manganese violet, ultramarine blue, Prussian blue, ultramarine blue, ferric blue, bismuth oxychloride, pearl, mica coated with titanium or with bismuth oxychloride, coloured pearlescent pigments, and mixtures thereof.
- 13. Foundation according to any one of the preceding claims, characterized in that the hydrophobic coated pigments are chosen from iron oxides and titanium dioxides.
- 14. Foundation according to any one of the
  20 preceding claims, characterized in that the hydrophobic
  coated pigments are treated with a hydrophobic agent
  chosen from silicones, fatty acids, metal soaps,
  perfluoroalkyl phosphates, perfluoroalkylsilanes,
  perfluoroalkylsilazanes, polyhexafluoropropylene
  25 oxides, polyorganosiloxanes comprising perfluoroalkyl
  perfluoropolyether groups, amino acids; N-acylated
  amino acids or their salts; lecithin, isopropyl

triisostearyl titanate, and mixtures thereof.

- 15. Foundation according to Claim 14, characterized in that the N-acylated amino acids comprise an acyl group having from 8 to 22 carbon atoms.
- 16. Foundation according to any one of the preceding claims, characterized in that the hydrophobic coated pigments are present in an amount ranging from 0.5% to 20% by weight, relative to the total weight of the emulsion, preferably in an amount at least equal to 5% by weight, and preferentially ranging from 5% to 20% by weight.
- 17. Foundation according to any one of the preceding claims, characterized in that the volatile
  15 fatty phase is present in an amount ranging from 30% to
  45% by weight, relative to the total weight of the emulsion, preferably ranging from 30% to 40% by weight and preferentially ranging from 33% to 38% by weight.
- 18. Foundation according to any one of the preceding claims, characterized in that the volatile hydrocarbon oil is chosen from hydrocarbon oils having a flash point ranging from 40°C to 102°C, preferably ranging from 40°C to 55°C, and preferentially ranging from 40°C to 50°C.
- 25 19. Foundation according to any one of the preceding claims, characterized in that the volatile hydrocarbon oil is chosen from volatile hydrocarbon

oils having from 8 to 16 carbon atoms, and mixtures thereof.

- 20. Foundation according to any one of the preceding claims, characterized in that the volatile by hydrocarbon oil is chosen from branched  $C_8-C_{16}$  alkanes, branched  $C_8-C_{16}$  esters, and mixtures thereof.
- 21. Foundation according to any one of the preceding claims, characterized in that the volatile hydrocarbon oil is chosen from isododecane, isodecane 10 and isohexadecane.
  - 22. Foundation according to any one of the preceding claims, characterized in that the volatile hydrocarbon oil is isododecane.
  - 23. Foundation according to any one of the preceding claims, characterized in that the volatile hydrocarbon oil is present in an amount ranging from 6% to 25% by weight, relative to the total weight of the emulsion, preferably ranging from 10% to 20% by weight, and preferentially ranging from 10% to 15% by weight.
- 24. Foundation according to any one of the preceding claims, characterized in that the volatile silicone oil is chosen from silicone oils having a flash point ranging from 40°C to 102°C, preferably having a flash point greater than 55°C and less than or equal to 95°C, and preferentially ranging from 65°C to 95°C.
  - 25. Foundation according to any one of the

preceding claims, characterized in that the volatile silicone oil is chosen from linear or cyclic silicone oils having from 2 to 7 silicon atoms, these silicones optionally containing alkyl or alkoxy groups having from 1 to 10 carbon atoms.

- 26. Foundation according to any one of the preceding claims, characterized in that the volatile silicone oil is chosen from octamethylcyclotetrasiloxane, decamethylcyclopentasiloxane, dodecamethylcyclopentasiloxane, dodecamethylcyclopentasiloxane, heptamethylcyclopentasiloxane, heptamethylcyclopentasiloxane, heptamethylcyclopentasiloxane, heptamethylcyclopentasiloxane, heptamethylcyclopentasiloxane, heptamethylcyclopentasiloxane, heptamethylcyclopentasiloxane, hexamethyldisiloxane, octamethylcyclopentasiloxane, dodecamethylcyclopentasiloxane, dodecamethylcyclopentasiloxane, dodecamethylcyclopentasiloxane, and mixtures thereof.
- 27. Foundation according to any one of the preceding claims, characterized in that the volatile fluorinated oil is chosen from nonafluoroethoxybutane, nonafluoromethoxybutane, decafluoropentane, tetradecafluorohexane, dodecafluoropentane, and mixtures thereof.
- 28. Foundation according to any one of the preceding claims, characterized in that the volatile fatty phase comprises at least one volatile hydrocarbon oil and at least one volatile silicone oil.
- 29. Foundation according to any one of the
  25 preceding claims, characterized in that the volatile
  oil chosen from volatile silicone oils, volatile
  fluorinated oils, and mixtures thereof is present in an

amount ranging from 20% to 32% by weight, relative to the total weight of the emulsion, preferably ranging from 20% to 30% by weight, and preferentially ranging from 22% to 26% by weight.

- 5 30. Foundation according to the preceding claim, characterized in that the volatile fatty phase comprises:
  - a first volatile hydrocarbon oil,
- a second volatile silicone oil having a flash point 10 greater than 55°C and less than or equal to 80°C, preferably ranging from 65°C to 80°C, and even better ranging from 67°C to 85°C,
- a third volatile silicone oil having a flash point greater than 80°C, preferably greater than or equal to 80°C and less than or equal to 95°C, and even better ranging from 87°C to 95°C.
  - 31. Foundation according to the preceding claim, characterized in that the first volatile hydrocarbon oil is isododecane.
- 32. Foundation according to Claim 30, characterized in that the second silicone oil is chosen from decamethylcyclopentasiloxane, decamethyltetrasiloxane, and preferably decamethylcyclopentasiloxane.
  - 33. Foundation according to Claim 30,
- 25 characterized in that the third silicone oil is dodecamethylcyclohexasiloxane.
  - 34. Foundation according to any one of

Claims 30 to 33, characterized in that the second volatile silicone oil is present in an amount ranging from 0.1% to 31.9% by weight, relative to the total weight of the emulsion, preferably ranging from 5% to 20% by weight, and preferentially ranging from 8% to 16% by weight.

- 35. Foundation according to any one of Claims 30 to 34, characterized in that the third volatile silicone oil is present in an amount ranging from 0.1% to 31.9% by weight, relative to the total weight of the emulsion, preferably ranging from 5% to 20% by weight, and preferentially ranging from 8% to 16% by weight.
- 36. Foundation according to any one of the preceding claims, characterized in that the volatile fatty phase comprises at least 30% by weight, relative to the total weight of the emulsion, of a mixture of decamethylcyclopentasiloxane,

dodecamethylcyclohexasiloxane and isododecane, the
content of isododecane being at least 6% by weight,
relative to the total weight of the emulsion.

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- 37. Foundation according to Claim 36, characterized in that the isododecane content is at least 10% by weight, relative to the total weight of the emulsion.
  - 38. Foundation according to any one of the preceding claims, characterized in that it comprises a

non-volatile additional oil.

- 39. Foundation according to Claim 38, characterized in that the additional oil is chosen from non-volatile hydrocarbon oils, non-volatile silicone oils, and mixtures thereof.
- 40. Foundation according to Claim 38 or 39, characterized in that the additional oil is present in an amount ranging from 0.1% to 12% by weight, relative to the total weight of the emulsion, and preferably ranging from 1% to 5% by weight.
- 41. Foundation according to any one of the preceding claims, characterized in that it comprises oils in an amount ranging from 30% to 45% by weight, relative to the total weight of the emulsion, and preferably ranging from 30% to 40% by weight.
  - 42. Foundation according to any one of the preceding claims, characterized in that it comprises a fatty substance chosen from waxes, gums, pasty fatty substances, and mixtures thereof.
- 43. Foundation according to any one of the preceding claims, characterized in that it comprises a fatty phase thickening agent.
  - 44. Foundation according to Claim 43, characterized in that the thickening agent is chosen from organomodified clays and hydrophobic pyrogenic silica.
    - 45. Foundation according to Claim 43 or 44,

characterized in that the fatty phase thickening agent is present in an amount ranging from 0.1% to 5% by weight relative to the total weight of the emulsion, and even better from 0.4% to 3% by weight.

- 5 46. Foundation according to any one of the preceding claims, characterized in that the fatty phase represents from 22% to 50% by weight, relative to the total weight of the emulsion, preferably from 25% to 45% by weight, and preferentially from 30% to 40% by weight.
- 47. Foundation according to any one of the preceding claims, characterized in that the aqueous phase is present in an amount ranging from 30% to 50% by weight, preferably ranging from 35% to 45% by weight, relative to the total weight of the emulsion.
- 48. Foundation according to any one of the preceding claims, characterized in that the aqueous phase comprises water and/or a solvent chosen from primary alcohols, glycols, glycol ethers, and mixtures thereof, and/or a stabilizing agent.
  - 49. Foundation according to any one of the preceding claims, characterized in that it comprises fillers.
- 50. Foundation according to Claim 49,

  25 characterized in that the fillers are chosen from talc,

  mica, silica, kaolin, starch, boron nitride, calcium

  carbonate, magnesium carbonate or hydrocarbonate,

microcrystalline cellulose, polyethylene powders, polyesters, polyamides, polytetrafluoroethylene ("Teflon"), silicone powders, and mixtures thereof.

- 51. Foundation according to Claim 49 or 50,
  5 characterized in that the fillers are present in an
  amount ranging from 0.1% to 15% by weight, relative to
  the total weight of the emulsion, preferably 0.1% to
  10%.
- 52. Foundation according to any one of the
  10 preceding claims, characterized in that it comprises in
  addition at least one additive chosen from gelling
  agents, hydrophilic or lipophilic thickening agents,
  moisturizing agents; emollients; hydrophilic or
  lipophilic active agents; anti-free radical agents;
  15 sequestrants; antioxidants; preservatives; basifying or
  acidifying agents; perfumes; film-forming agents;
  soluble colorants, and mixtures thereof.
- 53. Foundation according to any one of the preceding claims, characterized in that it has a 20 viscosity, measured at 25°C, at a shear rate of 200 min<sup>-1</sup>, ranging from 0.15 to 0.6 Pa.s, and preferably ranging from 0.25 to 0.45 Pa.s.
- 54. Cosmetic method for the non-therapeutic application of make-up to the skin which comprises the application to the skin of a foundation according to any one of the preceding claims.
  - 55. Use of a foundation according to any one

of Claims 1 to 53 in order to obtain a homogeneous make-up on the skin.

- 56. Use of a C<sub>8</sub>-C<sub>22</sub> alkyl dimethicone copolyol and of a dimethicone copolyol in a foundation composition in the form of a water-in-oil emulsion containing a fatty phase, an aqueous phase, hydrophobic coated pigments, the fatty phase comprising at least 30% by weight, relative to the total weight of the emulsion, of volatile fatty phase comprising:
- 10 at least 6% by weight, relative to the total weight of the emulsion, of at least one volatile hydrocarbon oil, and
- at least one volatile oil chosen from volatile silicone oils, volatile fluorinated oils, and mixtures
   thereof, in order to obtain a stable and/or homogeneous emulsion and/or in order to obtain a homogeneous makeup on the skin.

#### **ABSTRACT**

### Water-in-oil emulsion foundation

The subject of the invention is a foundation in the form of a water-in-oil emulsion comprising a fatty phase, an aqueous phase, a C<sub>8</sub>-C<sub>22</sub> alkyl dimethicone copolyol, a dimethicone copolyol, hydrophobic coated pigments, the fatty phase comprising at least 30% by weight, relative to the total weight of the emulsion, of volatile fatty phase comprising:

- at least 6% by weight, relative to the total weight of the emulsion, of at least one volatile hydrocarbon oil, and

at least one volatile oil chosen from silicone
 volatile oils, fluorinated volatile oils, and mixtures
 thereof.

The foundation is stable after storing at room temperature (25°C) for at least 2 months and makes it possible to obtain a homogeneous make-up on the skin.